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Arborists and Stinging Insects in the Landscape: A Potentially Painful Encounter

By Rick W. Harper and
Jody Gangloff-Kaufmann

Memorable encounters can remain with us for a long time: milestones like a first job, a first car, or even a first home. As urban foresters and arborists who work on the frontier known as the urban landscape, we may also remember another not-so-pleasant first encounter: our initial run-in with a stinging insect that successfully branded us as its target! Ouch!

From one perspective, stinging, piercing, or blood sucking insects get—and give other insects—a bad rap. They frequent posters and public service announcements; they are subjects of legend (don't let the bed-bugs bite); and on a really good day, they even land a spot in the evening news. On the other hand, however, stinging insects often get far too little attention in the green industry. While we may know, and thankfully hear repeatedly, how important safe work practices are, can any of us as practicing arborists

ever remember hearing a morning safety briefing aimed specifically at preventing or managing conflicts with wasps or bees before we left the yard that day? Or as community foresters, have we ever hosted a public outreach event that included even a mention of the care that citizens should exercise while they use a municipal park and chance upon a nest of wasps or bees? The answer for most of us is either

likely “no” or “very rarely.” Yet when we contrast the attention that is appropriately given to safe work practices centered on topics like the use of pesticides or tree risk assessment, the amount of attention concerning safety and stinging insects pales in comparison. This is especially true when we learn that according to one study, conflicts with stinging insects accounted for more

than “79 fatalities per year” in the U.S., and comprised “28.2% of the total animal-related fatalities from 1999 to 2007.” (1)

When we ponder the precarious heights that many of us literally brave in the green industry, the importance of gaining further understanding and insight about safe work practices and stinging insects becomes all the more apparent. And the first step on this journey is to learn about some of the more common wasps and bees around us, and the risks that they may pose.

Let us first consider the benefits of stinging insects, namely the bees and wasps, in our work and home landscapes. Not all are dangerous, and most are beneficial in some regard. Bees, as we know, are pollinators of flowering plants. Nearly 30% of food crops and 90% of wild plants require the pollination services of the thousands of species of bees (2). Of those, only a handful of species are potentially dangerous to humans, including bumble bees

(*Bombus* spp.) and honey bees (*Apis mellifera mellifera*). Wasps account for some pollination but serve more vigorously as predators, parasites, and scavengers. Even the harassing yellowjacket (*Vespa* spp.; *Dolichovespula* spp.) is a steward of the garden, plucking caterpillars off the



Above: Baldfaced hornet (David Cappaert, Michigan State University, Bugwood.org);
Below: Baldfaced hornet nest (Mollie Freilicher)

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plants that we grow. Most wasps are harmless, though, despite the reputation earned by their most bothersome members.

The key in managing the risk from these stinging insects **is to know what you're dealing with. The most dangerous** species live together in colonies, which are often built out of sight or out of reach. Colony-making, or social bees and wasps colonize voids in structures, old rodent burrows, abandoned vehicles, and spaces inside tree trunks and shrubs. They are quite opportunistic! Most social wasps use *cellulose* (paper) as the material for their comb. Some species build combs that are exposed but built in sheltered spots under eaves and flashing. Other wasps wrap the layers of comb in an envelope of paper. Bees, on the other hand, use wax that exudes from their bodies to build combs and require shelter inside a protected void.



Stinger being removed from skin (Scott Bauer, USDA)

The risks that people face with stinging insect encounters are from too much venom from numerous stings (*envenomation*), and from allergic reaction to even a small amount of venom (*anaphylaxis*). Not everyone reacts severely to a sting; in fact, most people do not. But over time, people tend to become more allergic to stings, especially if they are stung frequently. For beekeepers, being stung is an everyday

hazard, and most beekeepers keep an epinephrine autoinjector (i.e. an epi-pen) close on hand. This physician-prescribed device delivers an emergency dose of epinephrine to someone at risk of an anaphylactic shock reaction to a sting or other allergen. Arborists and green industry professionals who have more than a mild reaction to insect venom should consider carrying epinephrine while on the job. Additionally, many young people and new employees to the tree care industry may simply not know if they are allergic to wasp and bee stings if they may have never been stung. New employees should always be asked if they have ever been stung and fellow workers should also be made aware of any venom allergies for the safety of the crew. (Due to HIPA laws, this information can only be obtained voluntarily, of course).

Some species of wasps and bees are more aggressive or defensive than others. As a general rule, social species —

those that build large nests, take care of brood and exhibit a division of labor—pose the highest risk. Solitary wasps and bees may sometimes be present in large numbers, but they care for their young individually and do not exhibit strong defensive behavior. Here the species have been ranked by groups posing high, medium, and low risks based on the likelihood of an encounter resulting in one or many stings:



German yellowjacket. (Gary Alpert, Harvard University, Bugwood.org)

High risks

Of the 16 species of yellowjackets in North America, only a few are common enough in landscapes to pose significant risks. Yellowjackets are social insects that build large colonies in underground cavities, compost piles, stumps, and voids in structures, including vehicles and other objects. The nest is comprised of layers of comb wrapped in a papery envelope (even when built underground) and is grey in color. Common species include the German (*Vespula germanica*), eastern (*V. maculifrons*) and common yellowjacket (*V. vulgaris*). Despite subtle differences in nesting habits and behavior, these wasps are dangerous when disturbed as there can be thousands of workers prepared to defend the nest. Yellowjackets and other social wasps can sting repeatedly. Although they are valuable predators, yellowjackets will also scavenge, which may further their standing as a nuisance in the landscape. Arborists report that most encounters with yellowjackets may come from nests found in the ground or brush piles.

Two additional species of yellowjackets, the bald-faced hornet (*Dolichovespula maculata*) and aerial yellowjacket (*D. arenaria*), build nests above ground in trees, shrubs, on buildings, and other visible places. Bald-faced hornets are much larger than other yellowjackets but colonies usually have just a few hundred members. Anecdotally, this species is truly respected—and yes, even feared—for the pain that is associated with a sting. Aerial yellowjackets are slightly smaller than other yellowjackets with small round nests that resemble the large bald-faced hornet nest. Both species are primarily predators and will be

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highly defensive when the nest is disturbed. It is always important to keep in mind that Arborists face the risk of falling when working aloft (i.e. climbing or operating aerial lift equipment) and they strike a hidden nest in the tree canopy, then panic as they try to protect themselves from the numerous stings that ensue.

The European hornet (*Vespa crabro*) is the only true hornet in North America. It was introduced from Europe and has naturalized in less urban, more forested areas of the Eastern United States. Brown, papery nests are commonly found inside hollow trees, barns, attics, and wall voids of structures. Typical colonies have only 200-400 workers. The risk of stings is lower because this species is not commonly encountered, however, arborists may chance upon European hornets when taking down old trees or hollow limbs. These wasps are also known to girdle saplings and the branches of several types of trees and shrubs to feed on sap [3].

Paper wasps (*Polistes* spp.) are very common in landscapes. These differ from yellowjackets in many ways. Their bodies are more slender, and their rear legs dangle when in flight. Paper wasps may be yellow and black or red, yellow, and dark brown. The colony consists of a single layer of exposed comb that may be built on structures, in dense shrubs, and in objects such as bird houses, vehicles, fence poles, playground equipment, and other sheltered spots. Colonies are relatively small, containing less than 100 wasps, but colonies in a typical suburban landscape can be numerous. Arborists may encounter paper wasps when moving items under trees, such as grills, playground equipment and other objects with hidden nests.

Medium risk

There are 21 species of bumble bees in the eastern United States. Their fuzzy, plump bodies are distinctive, setting them apart from yellowjackets and hornets. Bumble bees are extremely important pollinators that are usually encountered in flowering landscape plants and trees. Although foraging bumble bees are docile, the nests are aggressively defended by workers that can sting repeatedly. The nests are built in dry, dark cavities close to the ground including rodent burrows, compost piles, foundation openings, and dense grasses. Occasionally, nests may be built in bird nest boxes or tree cavities. Colonies may consist of up to a few hundred bees.

Honey bees, the iconic pollinators, live in colonies of up to 50,000 male and female members with one queen. Encountering a honey bee colony in the wild can be dangerous if the colony is severely disturbed, but their level of aggression is dependent upon the season and weather. In spring and on warm, pleasant days honey bees are calm, while on cold, windy, rainy, and autumn days,

they can be very defensive, chasing an intruder for hundreds of yards. Either way, care should be taken to avoid stumbling upon a colony of honey bees, especially when a climber is preparing to make an ascent, since they may readily colonize hollow trees. They may also be found frequenting other structures and sheltered locations that even include patio furniture and grill covers! The other, and possibly more common, honey bee encounter is with a swarm. Honey bee queens produce thousands of female workers that are sterile and can never mate. True honey bee reproduction happens at the colony level, the goal of which is to create more successful colonies. To make new colonies honey bees must split the hive, produce a new queen and swarm. The swarm can consist of thousands of bees that, along with the queen, leave the hive with bellies full of honey, and gather into a large clingy mass in a tree, shrub, or on a structure while scout bees search for a new colony location. During a swarm, honey bees tend to be fairly docile although a surprise encounter with the human head-sized mass of bees can be shocking. In this case, call a beekeeper! A swarm is almost always valuable and can be collected and placed **into a keeper's hive.**

Low risk

Among the most visible landscape residents is the carpenter bee (*Xylocopa virginica*). These are solitary bees that carve long holes called galleries, in wood planks and tree limbs to lay eggs. Females are generally busy and out of sight as they work in the galleries, while males fly around chasing off other males—and you as well! In



Honey bee (David Cappaert, Michigan State University, Bugwood.org)

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truth, male carpenter bees are not aggressive toward humans, nor can they sting. Instead, you probably appear to them as a new landmark or object in their carefully guarded territory around the gallery of a female bee of choice. To identify a male carpenter bee look for the light yellow patch on the face of the bee. Females forage and lay eggs and rarely display aggression. Carpenter bees will damage exposed wood of trees as well as structures.

Other highly visible but low-risk stinging insects include the cicada killer wasp (*Sphecius speciosus*), spider wasps (Family: Pompilidae), potter, mud and organ-pipe wasps, ground nesting bees, and mason bees (Families: Eumeninae, Sphecidae). All are solitary, guard no cache of resources, and are not a stinging hazard. Cicada killer wasps exhibit the same behavior as carpenter bees. The female will dig a tunnel in the ground with several galleries and provision larvae with cicadas for food. They spend much of their time foraging in tree tops for cicadas and are generally only active during the window when cicadas are calling (mid-summer). Male cicada killers guard the nest holes of females with the intention of mating and driving off other males. There may be many nest holes in a small area and these wasps prefer ground that is dry, sandy, and without ground cover. The same is true of ground nesting bees, which appear in early spring (around forsythia bloom) in huge numbers. Both of these ground nesters, as well as potter and mason wasps and other solitary species, are mostly harmless to humans.

The key to safe work practices is to know the risks. Understanding the levels of risk posed by stinging insects and being able to distinguish among the species will save time, money, and possibly a trip to the emergency room. It is also wise to consider the importance of most species of wasps and bees as pollinators and predators and the value that they bring to the landscape.

We will discuss prevention-based safety and integrated

management practices for arborists, regarding wasps and bees in the landscape in the next issue.

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This article originally appeared in *Arborist News*, August 2014.



Cicada killer (Jessica Louque, Smithers Viscient, Bugwood.org)

August is Forest Pest Awareness Month

August 2015 marks the seventh anniversary of the discovery of Asian longhorned beetle in Massachusetts. Since that fateful day in 2008, more than 30,000 hardwood trees have been removed because of this invasive pest. In 2012, Emerald Ash Borer, another invasive pest, was found in Berkshire County and has since been found in Essex and Suffolk Counties.

Join your fellow citizens during the month of August and check your trees for signs of damage caused by Asian longhorned beetle and emerald ash borer. Take just ten minutes this month to check your trees for beetles and signs of damage.

For information on Asian longhorned beetle: <http://asianlonghornedbeetle.com/spot-it/>

For information on emerald ash borer: <http://massnrc.org/pests/pestFAQsheets/emeraldashborer.html#id>.

Species Spotlight—Summersweet, *Clethra alnifolia*

By Mollie Freilicher
MA-DCR
Community Action Forester

This month, we're looking at a plant with great late-summer interest. Summersweet is a

native shrub that is found in coastal areas from Maine to Florida and Mississippi. There are also pockets of native summersweet in Texas, Louisiana, and Nova Scotia, the northern limit of its natural range. Its natural habitat includes coasts, streams, swamps, and bogs. In coastal areas, it can form dense colonies. Summersweet gets its common name from the fragrant flowers that bloom in late summer. Summersweet is hardy in USDA Hardiness Zones three to nine and its adaptability to a variety of conditions make it a great addition to the landscape.



Summersweet is a dense round-topped shrub that can grow up to 12 feet tall and up to 10 feet wide, depending on conditions. Summersweet leafs out late in spring and



during the growing season, leaves are a glossy medium green, becoming yellow to golden-brown in the fall. It is alternate and simple, with obovate leaves one and a half to four inches long and up to two inches wide. The tips of leaves are pointy and the edges are serrate, becoming entire toward the base. Leaf surfaces are glabrous and shiny green above and paler on the underside.

Twigs are slender and brown, with light-brown pith. Buds are small and ovoid, with loose scales. The terminal bud is much larger than lateral buds. The leaf scar has one bundle scar. Bark of summersweet is gray, becoming exfoliating with age.

Summersweet flowers bloom on new growth in late July and August. The flowers, which last four to six weeks, are blooming at a time when most shrubs are past flowering. The flowers are perfect, white, with five petals, about one-third inch across, and are fragrant. They are borne in three to eight inch upright racemes. The fruit is a dry, brown, three-valved capsule that persists on the plant through winter, making it a



great characteristic for winter identification.

Summersweet grows best in moist, acidic soil, with some organic matter, in part shade or full sun, but it is adaptable and will grow in wet or dry sites. It tolerates salt in coastal areas and tolerates drought. The journal *Arnoldia*, notes that after the Hurricane of 1938, summersweet plants that were submerged in saltwater for over 24 hours, were recovering when observed a year later. Summersweet typically has few pest problems, though in dry conditions mites can be an issue.



Summersweet is great for attracting bees, butterflies, and hummingbirds and mammals eat the fruit and distribute the seeds, though it also will spread through stolons.

There are many, many cultivars of summersweet, including some with pink flowers, such as 'Ruby Spice.' See Michael Dirr's *Manual of Woody Landscape Plants* for descriptions of available cultivars.



For more information:

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Photos: Form: [Cornell University Woody Plant Database](#); Leaf: John Brandauer, [Flickr](#); Twig, Virginia Tech; Flower: Charles Wohlers, [Flickr](#); Dried fruit, Virginia Tech; botanical drawing: *Flora Batava*, vol. 11, [Wikimedia](#).



Growing on Trees

Western Mass Tree Wardens Dinner Meeting

On June 4, 2015 tree wardens, commercial and utility arborists, and others from over 18 communities in Western Mass met at the Bluebonnet Diner in Northampton for an evening of networking and learning about emerald ash borer. Ten tree wardens were in attendance, five utility arborists, eight commercial arborists, and others. The evening was a trial run of what is hoped to become the Western Mass Tree Wardens, a subgroup of the Massachusetts Tree Wardens' and Foresters' Association. **The event was made possible with support from a number of individuals and institutions: Karen Doherty of the Massachusetts Tree Wardens' and Foresters' Association, Alan Snow of the Town of Amherst, Rick Harper of the University of Massachusetts, Amherst, Department of Environmental Conservation and the Center for Agriculture, Food & the Environment, Calvin Layton of Eversource Energy, Dave Hawkins of Urban Forestry Solutions, Inc., Mollie Freilicher of the Department of Conservation and Recreation, and the U.S. Forest Service.** Organizers hope that these dinner meetings will provide an opportunity for tree wardens and other arborists in the western part of the state to come together and share ideas and earn CEUs in an informal setting.

Attendees arrived in time for some for networking before sitting down to dinner. Following the meal, Alan Snow addressed the crowd of thirty and talked about the idea behind the Western Mass Tree Wardens group and invited Rick, Calvin, and Mollie to say a few words about our programs and how each entity works with communities. **The main event of the evening was Ken Gooch's presentation on emerald ash borer. Ken, Director of Forest Health for the Massachusetts Department of Conservation and Recreation, discussed the latest findings on emerald ash borer in Massachusetts and took questions from the crowd.** It was an informative evening that enabled attendees to earn valuable continuing education credits from the International Society of Arboriculture, the Massachusetts Arborists Association, and the Massachusetts Department of Agricultural Resources.

The meeting ended with a discussion of the future of the group and attendees were interested in seeing the group continue and suggested a variety of topics for future meetings, from Chapter 87, to more pests and diseases, to road safety, to nursery standards, to a tree inventories. The next meeting is planned for early October. If you are a tree warden, commercial arborist, or utility arborist in western Mass. (or western Central Mass), stay tuned for information on an upcoming session in Northampton October 6, 2015.

Tree Steward Training

October 2-3, Harvard Forest, Petersham, MA

The 2015 DCR Tree Steward Training will take place Friday, October 2, to Saturday, October 3, at the **Harvard Forest in Petersham. At this year's session: learn** about tree planting, i-Tree, pests, pruning, tree ID, and funding urban forestry programs and participate in a roundtable discussion on urban and community forestry. **We'll have a mix of indoor and outdoor sessions.**

Registration will be available on the [DCR Urban and Community Forestry website \(http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/branching-out-additional-programs.html\)](http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/branching-out-additional-programs.html)

Deadline to register: September 16.

We do our best to ensure that listings are accurate, but please check with program organizers for the most up-to-date information.

Natural Disturbance and Forest Management on Municipal Forestland

A conference for Municipal Officials, Foresters, Natural Resource Professionals, Land Trusts, and Civic Groups

Sunday, September 27, 2015, Wilbraham, MA

Engaging speakers will present local, state, and regional perspectives on town forests. A field tour of the **Town of Wilbraham's forestlands will highlight methods and results of sustainable management activities and showcase the significant impacts of recent natural disturbances.** Afternoon demonstrations will be offered by local wood and natural resource-based businesses, conservation organizations, and recreational groups.

For more information and to register for this free event, go to: <http://masswoodlandsinstitute.org/events.html>

Co-hosted by the Town of Wilbraham, Wilbraham & Monson Academy, and the MA DCR Service Forestry Program, with assistance from the MA Forest Stewardship Program, and the Franklin Land Trust.

Growing on Trees

Partners in Community Forestry National Conference

November 18-19, 2015, Denver, CO

Two days of collaboration and idea sharing geared toward helping you find new ways to strengthen your **own community forest. Whether you're an urban forestry professional, an environmental nonprofit, or an educator interested in the role of trees in our cities, there is something at the Partners conference for you.** Some talks on the agenda:

- ◆ Using Canopy Goals and Ecosystem Services Data to Support Land Use Decision-Making
- ◆ **Maryland's New Approach to Increasing Urban Tree Canopy**
- ◆ Development Pressures and Small Towns: Planning Tools that can Help

For the full schedule and more information, go to:

<https://www.arborday.org/programs/pcf/index.cfm>

Chainsaw Training for Forest Landowners

August 29-30, 2015, Athol, MA

The course will include safety planning, protective equipment needs, directional tree felling, chainsaw maintenance, chain sharpening, and how to mitigate spring poles. No prior chainsaw experience is required. Find out if you are eligible for this session: <http://www.mountgrace.org/chainsaw-training-829-30>

Urban Forest Connections

Second Wednesdays | 1:00 – 2:00 p.m. ET

The Forest Service's Urban Forest Connections webinar series brings experts together to discuss the latest science, practice, and policy on urban forestry and the environment. These webinars are open to all. Past webinar presentations and recordings are available online: <http://www.fs.fed.us/research/urban-webinars/>.

September 9, 2015 | 1:00-2:15 p.m. ET

Urban FIA: Bringing the Nation's Forest Census to Urban Areas

Mark Majewsky, USDA Forest Service

Dick Rideout / Andrew Stoltman, Wisconsin Department of Natural Resources

Chris Edgar, Texas A&M Forest Service

Future Webinars

October 14, 2015 | 1:00p.m.-2:15 p.m. ET

October 28, 2015 | 1:00p.m.-2:00 p.m. ET

Webcasts

Urban Forestry Today

Fall Noonhour Webcast Series:

The Emerald Ash Borer

There will be no August webcast, but stay tuned for these upcoming sessions in September and October.

Native Ash Seed Collecting: A Response to Emerald Ash Borer

Thursday, September 3, 2015, 12:00 – 1:00 p.m. (Eastern)

What action can arborists, urban foresters, and tree enthusiasts take in response to emerald ash borer? Join Molly Marquand, of the Mid-Atlantic Regional Seed Bank, to learn more about native ash seed collecting as a means of preserving and protecting our ash tree resource.

Go to: www.joinwebinar.com Code: 136-194-563

Emerald Ash Borer Update

Thursday, October 1, 2015, 12:00 – 1:00 p.m. (Eastern)

With the 2015 growing season coming to a close, arborists, urban foresters, and tree enthusiasts will be eager to learn more about the latest activities of the emerald ash borer that occurred in the spring and summer months. Join Dr. Nate Siegert, of the USDA Forest Service, as he provides the latest information on the ecology, natural history, and management of this well-known pest.

Go to: www.joinwebinar.com Code: 101-432-635

These broadcasts are free and each one will offer the opportunity for arborists to earn 1.0 ISA CEU and 0.5 MCA credit.

For more information, contact:

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The Urban Forestry Today 2015 Webcast Series is sponsored by the University of Massachusetts Department of Environmental Conservation, in cooperation with the USDA Forest Service, Massachusetts Department of Conservation and Recreation, University of Massachusetts Extension, and Massachusetts Tree Wardens' & Foresters' Association.

Growing on Trees

Upcoming Conference: Know the Soil, Know the Land

Thursday, September 17, 2015, 9:00 a.m. – 4:00 p.m.
Heifer Farm, Rutland, Massachusetts

Understanding soils is critical to conservation and land use planning that supports sustainable agriculture, forestry, and greener urban, suburban, and rural communities. If you know your soils, you know and can better manage your land.

This one-day conference will focus on soil information **resources available through the USDA Soil Survey**. We'll provide updates on recent changes to the data and help you understand how to use it. The day will include classroom workshops and field demonstrations.

Who should attend? Natural resource management and environmental protection professionals, agricultural commission and conservation commission members, farmers, and other land owners and managers will all benefit from this worthwhile event!

This training has been approved for up to seven training contact hours (TCH) for Soil Evaluator (SE) renewal under the Massachusetts Title 5 program. A certificate of completion will be provided to all participants.

Sponsored by: the USDA Natural Resources Conservation Service, Massachusetts Association of Conservation Districts and the Worcester County Conservation District.

For more information, go to: <http://worcesterconservation.org/massachusetts-soils-conference-47.html>

Free Tree Risk Assessment App

Working with the Timmons Group, the Texas A&M Forest Service developed an app to aid in conducting tree risk assessments. The Level 1 Tree Risk Assessment app helps perform a limited visual tree assessment. It maps those trees with obvious defects that have a Probable or Imminent likelihood of failure and identifies treatment. Designed for pre-and post-storm use this app can store tree assessments locally, export them via email or can be connected to ArcGIS Online (with an ArcGIS Online account). Check out the app for iOS or Android at <http://texasforestinfo.tamu.edu/MobileApps/Index.html>

DCR Urban and Community Forestry Factsheets

We have now updated our series of factsheets and they are available online.

[Urban and Community Forestry](#)
[Why Invest in Urban and Community Forestry?](#)
[What Is Tree City USA?](#)
[Protecting Our Community Trees](#)
[Town / City Tree and Forest Committees](#)
[Tree Inventories and Surveys](#)
[Growing Your Community Forest](#)
[Setback Planting](#)
[Trees and Roads Working Together](#)

Chip Drop Web App: Connecting Arborists and those in Need of Mulch

"It's like Uber for mulch."—Chip Drop user

Chip Drop was started in Portland, Oregon by Bryan Kappa. After a year of working on a ground crew, it was evident how much the tree service industry needed a way to organize wood chip drop sites. Chip Drop is a way to connect people who want cheap mulch for their yard or garden, with arborists who need an easy way to get rid of their wood chips.

Arborist wood chips are a great, inexpensive way to mulch around your yard or garden. If you're a homeowner, you'll find that Chip Drop will help you increase your chances of getting a free load of wood chips delivered to your house. You'll also appreciate that you don't have to worry about getting more loads than you want, and you can specify if there any species of trees you don't want to receive.

Link: <http://www.chipdrop.in>

Call for Volunteers

Volunteering at Tower Hill Botanic Garden in Boylston, MA is a great way to expand your knowledge of plants, meet new people and give back to your community. Contact Suzanne Hauerstein, Volunteer Coordinator at shauerstein@towerhillbg.org or call 508-869-6111 x175 for more info.

Grants

DCR Urban and Community Forestry Challenge Grants

Next deadline: October 1 (Intent to Apply) November 1 (Full Application)

Challenge grants are 50-50 matching grants (75-25 for environmental justice projects) to municipalities and nonprofit groups in Massachusetts communities of all sizes for the purpose of building local capacity for excellent urban and community forestry at the local and regional level.

The USDA Forest Service provides funding for the grant program, and DCR administers the grants with guidance from **the Massachusetts Tree Wardens' and Foresters' Association. The DCR Urban and Community Forestry Program assists communities and nonprofit groups in their efforts to protect and manage community trees and forest ecosystems, with the ultimate aim of improving the environment and enhancing the livability of all of Massachusetts's communities.**

For more information on the Challenge Grants, including our Eversource Go Green grants and National Grid Partnership Grants, contact Julie Coop at 617-626-1468 or julie.coop@state.ma.us or Mollie Freilicher at 413-577-2966 or mollie.freilicher@state.ma.us.

Changes to the DCR Urban and Community Forestry Challenge Grant

In 2016, our Urban and Community Forestry Challenge Grant will move to one grant round per year. The annual deadline will be November 1. This move will enable the program to better review and compare grant proposals. Look for some additional changes to the 2016 program in upcoming issues.

Forest Legacy Request for Proposal Now Available for FY2017

The MA Forest Legacy Program FY 2017 Request for Proposals announcement and application materials are posted at: <http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/forest-legacy-program.html>

Forest Legacy Project Proposals must be submitted into the "Forest Legacy Information System" (FLIS) and a hard copy of the application received no later than 5:00 p.m. on September 14, 2015 for project proposals to be considered complete and eligible for review and ranking by the Massachusetts Forest Legacy Committee.

Project proponents should work with the DCR / Bureau of Forestry / Forest Legacy Program Coordinator or the appropriate Forest Legacy Area Sponsor to complete the data entry into FLIS.

Project Proponents are requested to attend the September 2015 meeting of the MA Forest Legacy Committee and be prepared to present their proposal to and answer questions from the Forest Legacy Committee. Additional information about the September 2015 meeting and presentation will be e-mailed to each Project Proponent.

For additional information please contact:
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MA-DCR, 355 West Boylston Street, Clinton, MA 01510
phone: 978-368-0126 x120; fax: 978-368-0217
lindsay.nystrom@state.ma.us

<http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/forest-legacy-program.html>

New England Grassroots Environmental Fund

NEGEF grants are designed for groups that are doing community-based environmental work in CT, ME, MA, NH, RI or VT, are volunteer-driven or have up to 2 full-time paid staff (or equivalents), and have an annual operating budget up to \$100,000.

Seed Grants \$250-\$1,0000

Quick project-focused grants dedicated to helping volunteer

groups launch and build their *newly-evolving project(s)*.
Deadline: Apply anytime (expect a decision in 4 weeks)

Grow Grants \$1,000-\$3,500

Competitive group development grants dedicated to helping *established groups* increase capacity, collaborate, and leverage impact.

Deadlines: March 15 & September 15
(expect decisions early June & December)

For more information, go to: <http://grassrootsfund.org/dollars>

Growing on Trees

Recommendations for Handling Ash

In November 2014, the Massachusetts wood quarantine for Emerald Ash Borer (EAB) was expanded to encompass the entire state of Massachusetts. The movement of regulated articles within the state is no longer restricted. Regulated articles can also move within the multi-state contiguous quarantine, although there are some limitations.

There are no legal requirements for chipping or handling wood that will remain in the Massachusetts quarantine, but there are some *recommendations* for limiting the spread of EAB when handling wood in the quarantine.

The purpose of this factsheet is to help reduce the spread of EAB within the state quarantine area.

RECOMMENDATIONS

Firewood: Season it, sell it, or burn it where you cut it. Keep ash firewood as close as possible to where it was felled. After two years of seasoning, any EAB will have emerged or died from any ash firewood. Hardwood firewood cannot leave the quarantine area, but it can move freely *within* the quarantine; however, it is a best practice to keep it local.

Whether part of a contiguous EAB quarantine or not, no Massachusetts firewood that has not been treated with a USDA-approved method can enter Connecticut (hardwood restriction only), Maine, New Hampshire, or New York. Vermont restricts firewood entering state parks, forests, and national forests. State definitions of firewood vary, but often include wood under 48 inches in length that is used for fuel. This can include both hardwoods and softwoods.

Ash woodchips: Chips that will remain within the quarantine area may be larger than 1x1 inch in two dimensions. Chips that will leave the quarantine area must be no larger than 1x1 inch in two dimensions. If you are chipping between May 1 and October 1, chip ash logs near where trees were felled to avoid spreading EAB. If cutting and chipping will occur between October 1 and the May 1, wood may be moved within the quarantine prior to chipping. Check all equipment for woody debris prior to leaving a site to reduce the risk of transporting un-chipped infested wood. May 1 - October 1 is considered the EAB flight season. EAB adults are typically active between 500-1100 growing degree days.

Ash wood debris (limbs, roots, stumps, and other unprocessed ash wood): Keep debris within the quarantine. A best practice would be to keep it within 25 miles of where wood originated and to chip all debris. Tree care professionals should consider whether a load may contain infested ash debris before leaving a job site and potentially transporting infested wood to a new area.

Ash logs and untreated ash lumber: These articles can move freely within the state and within the multi-state contiguous quarantine for processing. However, we *recommend* moving logs and untreated ash lumber between October 1 and March 1 so that the wood processing can be completed *before* the flight season begins on May 1. If you are moving the logs into an area in another state that is not under quarantine, they can only be moved between October 1 - May 1 and must be accompanied by a USDA signed compliance agreement. Processing must be completed by the start of the EAB flight season on May 1.

Ash nursery stock: Ash nursery stock cannot leave the quarantine under any circumstances. We do not recommend that communities plant ash trees at this time because of the threat of emerald ash borer and the potential to lose newly planted trees to the insect.

Please note that all species of ash are regulated under the Asian Longhorned Beetle (ALB) quarantine in parts of Worcester County and that no regulated material can leave the ALB Regulated Area. For information on the ALB quarantine, contact the ALB Cooperative Eradication Program, 508-852-8090.

Call the Forest Health Program for further information on moving ash materials out of the EAB quarantine zone, 413-253-1798.

To report signs of EAB infestation, call (866) 322-4512 or go to <http://massnrc.org/pests/>. These recommendations are adapted from the Wisconsin Emerald Ash Borer Program.

This material is from our recent factsheet, [**Recommendations for Handling Ash**](#).



Gleanings

Arbor Day Foundation Awards

Since 1972, The Arbor Day Foundation has recognized outstanding individuals, environmental leaders, and innovative organizations for their sustainable conservation efforts on an international, national, state and community level through the Arbor Day Awards Program. Winners have demonstrated the very best in tree planting and care, Arbor Day celebrations, partnerships, community projects, and environmental education.

The 2015 Arbor Day Awards honored thirteen individuals and organizations for their outstanding contribution to tree planting, conservation and stewardship. Read their stories and watch videos about the winners by going to this link:

<http://www.arborday.org/programs/awards/2015/>

[Learn more](#) about the Arbor Day Foundation Arbor Day Awards Program and to [nominate a worthy candidate](#) for this recognition.

Massachusetts Certified Arborist Program (MCA)

The Massachusetts Arborists Association (MAA) is proud to sponsor the Massachusetts Certified Arborists (MCA) program. The MCA program is a voluntary certification program initiated in 1957 by leading Massachusetts arborists.

Since the program's inception, more than 800 tree care professionals have obtained the MCA designation.

The purpose of the MCA program is to raise the level of public awareness as to the importance of working with trained professionals and to provide a means of self-improvement and continuing education for the certified professional. In short, the MCA program helps to build professionals, enhance businesses, and protect consumers.

Exams are offered twice yearly (generally the first Friday in April and October).

The next MCA Exam is scheduled for October 2, 2015

MCA Study Guide Version 2.0 CD - members. [Order here](#)

MCA Study Guide Version 2.0 CD - non members. [Order here](#)

MCA Study Guide Version 2.0 CD - students. [Order here](#)

[Click here](#) to download the brochure for mail or fax orders

The MCA program examinations are prepared, conducted and corrected under the direction of the [MCA Examining Committee](#). Solely and exclusively a voluntary certification program, it is not in any way connected with any agency of the government. This independence, so typical of our great Northeastern spirit, ensures that the MCA program will serve our companies, our employees, and our customers with integrity and benefit them for years to come.

ISA Certified Arborist Exam

ISA credentials help consumers identify qualified, knowledgeable tree care professionals. Earning a credential is a voluntary activity, but it demonstrates that you have the proper knowledge and skills, as well as a high level of dedication to your profession and your community. ISA Certified Arborists understand the importance of continued education and how it helps to make the world be a better place, one tree at a time.

Paper-based exams are offered periodically in New England and computer-based exams may be scheduled at any time. Upcoming paper-based exams:

August 7, 2015—Orono, ME

October 24, 2015—North Conway, NH (Part of New England Chapter, ISA annual conference)

November 6, 2015—Orono, ME

December 2, 2015—Boston, MA (New England Grows)

December 12, 2015—Orono, ME

For more information, go to: <http://newenglandisa.org/certification.html> and <http://www.isa-arbor.com/certification/becomecertified/index.aspx>.

Gleanings

A New Method for Streamlining Tree Selection in New York City

The New York City Parks Department has streamlined its system for making tree species selections for 25,000 street tree plantings a year. They write about their new process and hope that their system provides useful insights that can be adapted and customized to the needs of other cities undertaking street tree planting.

Read the story from *CityTrees* at nycgovparks.org.

When an Australian City Gave Trees Email Addresses...

By Erin Blakemore

July 8, 2015—They provide shade, air to breathe, and an undeniable sense of grandeur. But would you ever write a letter to the tree? Officials in Melbourne, Australia have discovered that for many, the answer is a resounding yes — *The Guardian's* **Oliver Milman** reports that when they rolled out a program that assigned email addresses to trees in a bid to help identify damage and issues, they discovered that city residents preferred to write them love letters instead.

The city is calling it “an unintended but positive consequence” of their attempt to help citizens track tree damage.

On [their urban forest data site](http://theirurbanforestdata.com), Melbourne assigned ID numbers and email addresses to each of the city's trees so it would be easier to catch and rehabilitate damaged trees.

Then the emails began to arrive. Milman writes that instead of damage reports, people began to write fan mail to **trees, complimenting their looks and leaves and telling tales of how they'd helped them survive during inclement weather.** Some trees even write back. Read the full story at Smithsonian.com or listen to the [NPR story](http://NPR.com).

Urban Forest Revitalizes Neglected Lots in New Orleans

New Orleans, LA (June 30, 2015) — The Academy Park Urban Forest had its ribbon-cutting ceremony last week in New Orleans East. The celebration was in honor of



Photo courtesy of the New Orleans Advocate

1,000 vacant lots being converted into green space and community-friendly areas, including 216 new trees of nine species. It all started with a local resident who wanted to plant a few trees.

The tree-filled landscaping with park benches and garden paths was dreamt up by Lawrence Banks, a 65-year-old retired social worker who lives across the street from the lot. He had the idea of making the empty lots into assets for the community and brought it to the New Orleans Redevelopment Authority (NORA), which owns the property.

“It was my dream that we would create such a milieu for this community; subdivisions should be more than bricks, mortar and concrete,” Banks said.

The area became a “sight for sore eyes” after Katrina.

Now, it boasts 216 trees, an irrigation system, French drain, storm water management grading and two signature NORA benches.

NORA said the Academy Park Urban Forest will be maintained by Banks and the Garden Doctors. The Academy Park Development Association will help maintain the area after this year.

Banks told the city if it helped him fix up the lot, he'd take care of it. Landscape architects designed the property so that Banks could maintain it with his lawnmower. There are now 216 trees of nine species: Nuttall Oak, Willow Oak, Ginkgo, Bald Cypress, Swamp Red Maple, Forest Pansy, Eastern Redbud, Southern Magnolia and Sweetbay Magnolia. NORA is now landscaping five more lots and will break ground on a rain garden in the Lower Ninth Ward. NORA says it is always looking for creative ways to revitalize vacant lots around the city, even if they **don't come with a volunteer gardener across the street.**

Sources: [“With neighbors' help, row of empty lots becomes a small, tidy woods,”](http://www.fox8.com/story/28844100/With-neighbors-help-row-of-empty-lots-becomes-a-small-tidy-woods) [“Urban forest revitalizes overgrown, neglected lot in eastern New Orleans,”](http://www.fox8.com/story/28844100/Urban-forest-revitalizes-overgrown-neglected-lot-in-eastern-New-Orleans) and [“City leaders, community officially unveil Academy Park Urban Forest in New Orleans East”](http://www.fox8.com/story/28844100/City-leaders-community-officially-unveil-Academy-Park-Urban-Forest-in-New-Orleans-East) From [AC Trees](http://www.ac-trees.com).

News

Living Near Trees is Good for Your Health

By Chris Mooney

July 9, 2015—In a new [paper published Thursday](#), a team of researchers present a compelling case for why urban neighborhoods filled with trees are better for your physical health. The research appeared in the open access journal *Scientific Reports*. The large study builds on a [body of prior research](#) showing the cognitive and psychological benefits of nature scenery — but also goes farther in actually beginning to quantify just how much an addition of trees in a neighborhood enhances health outcomes. The researchers, led by psychologist Omid Kardan of the University of Chicago, were able to do so because they were working with a vast dataset of public, urban trees kept by the city of Toronto — some 530,000 of them, categorized by species, location, and tree diameter — supplemented by satellite measurements of non-public green space (for instance, trees in a person's back yard). They also had the health records for over 30,000 Toronto residents, reporting not only individual self-perceptions of health but also heart conditions, prevalence of cancer, diabetes, mental health problems and much more. Read the full story at [washingtonpost.com](#).

Wildlife Forensics Lab Uses Tech To Sniff, Identify Illegal Wood

By Jes Burns

June 28, 2015—Before you prosecute thieves, you have to know what they stole. It's the same for crimes against nature. The world's only wildlife forensic lab is in southern Oregon. The lab usually specializes in endangered animal cases, but armed with a high-tech device, it's now helping track shipments of contraband wood. There's a small woodshop at the U.S. Fish and Wildlife Forensics Lab. But there's no sawdust, or power tools. The shop is more like an archive, containing samples of some of the rarest woods on the planet — African mahogany, Brazilian ebony and more. The samples lean neatly on dozens of shelves. Lab director Ken Goddard flips through wooden planks the size of cellphones. They're used to help identify illegal shipments of rare woods. Read the full story at [npr.org](#).

Gypsy Moth Caterpillars Wreak Havoc on Cape Cod

By Bill Shields

July 6, 2015, Boston — They're back! Gypsy moth caterpillars are wreaking havoc on hardwood trees on Cape Cod and Southeastern Massachusetts. "I've been here for four years, and haven't seen it this bad," says Larry Dapsis, of the Cape Cod Cooperative Extension Service. "Usually, the winter moth caterpillar is first at the dinner table, but

Some Good News for Native Americans Who Rely On Black Ash for Basket-Making

New research published in the journal *Agricultural and Forest Entomology*, indicates that larvae from emerald ash borer (*Agrilus planipennis*) can be killed when logs are submerged in water for prolonged periods of time, preserving the wood for basket-making. This study tested a traditional method for storing ash logs. Researchers submerged bolts that were 60 cm long in a river for varying periods of time and in different seasons in 2010 and 2011. All larvae died and no adults emerged when logs were submerged for at least 10 weeks in the spring of 2010. In 2011, logs were submerged for 18 weeks over the winter or 14 weeks in the spring, resulting in 100% mortality. Poland, T. M.; Ciaramitaro, T. M.; Emery, M. R.; Crook, D. J.; Pigeon, E.; Pigeon, A. 2015. Submergence of black ash logs to control emerald ash borer and preserve wood for American Indian basketmaking. *Agricultural and Forest Entomology*. See also: http://www.nrs.fs.fed.us/disturbance/invasive_species/eab/control_management/black_ash_submergence/

Shady Lanes Returning to New Jersey Towns Bitten by Asian Longhorned Beetle

By Lisa Eckelbecker

July 5, 2015, Linden, NJ — **Jeffrey A. Tandul's friends like to joke that he's a "dead tree savant," able to spot dying trees from blocks away, but on a gray June day he's more focused on the living.** Mr. Tandul, chairman of the Shade Tree Commission in this community about 20 miles outside New York City, peers through the windshield of his car as he steers down streets lined with young trees lush with leaves. **"Before the planting it was pretty bare, but I'm pleased to see that these are established pretty well,"** he said, after turning into a neighborhood surrounded by vast industrial properties. **"These zelkovas have really taken off."** "Before" refers to the days after 2002 when contractors descended on Linden's neighborhoods to remove trees infested with or endangered by the Asian longhorned beetle, the same invasive insect identified in Worcester in 2008. Read the full story at [Telegram.com](#).

this year, it's the gypsy moth." The big, hairy caterpillars can eat 12 square inches of leaves a day and the result is tracts of hardwoods that look like winter, or early spring. **They're virtually stripped of their leaves. And it's not just a problem if you're looking for shade. "Homeowners are very concerned," says Dapsis, "They want to know if their trees will die and sometimes the stress of being defoliated can kill the trees."** But the caterpillars are done eating now. Soon, they'll turn into moths. Watch a video at [boston.cbslocal.com](#).

On the Horizon

August	Forest Pest Awareness Month	
Aug 5	Mass. Certified Horticulturalist (MCH) Exam, Westborough, MA, www.mnla.com	
Sept 3	Urban Forestry Today webinar, www.joinwebinar.com Code: 136-194-563	
Sept 9	Urban Forest Connections webinar, http://www.fs.fed.us/research/urban-webinars	
Sept 17	Massachusetts Soil Conference, www.worcesterconservation.org	
Sept 21-23	TRAQ Training, Montpelier, VT, newenglandisa.org	
Sept 22	MAA Dinner Meeting, Framingham, www.massarbor.org	
Sept 23	Saluting Branches, Arborist Day of Service, www.salutingbranches.org	
Sept 23	Establishing Trees in Urban Environments, Newburyport, MA, www.masstreewardens.org	
Sept 24-26	TRAQ Training, Portsmouth, NH, newenglandisa.org	
Sept 26	UMass – Stockbridge Tree Climbing Competition, UMass-Amherst	
Sept 27	Town Forest Celebration, Wilbraham, MA,	
Sept 28-30	TRAQ Training, S. Portland, ME, www.newenglandisa.org	
Oct 1	Deadline: Intent to Apply DCR Urban & Community Forestry Challenge Grant	
Oct 1	Urban Forestry Today webinar www.joinwebinar.com Code: 101-432-635	
Oct 2	MCA Exam, Elm Bank, Wellesley, www.massarbor.org	
Oct 2-3	DCR Tree Steward Training , Harvard Forest, Petersham	
Oct 6	EPA Green Infrastructure Webcast, www.epa.gov	
Oct 6	Western Mass Tree Wardens Dinner Meeting, Northampton	
Oct 9-11	Women's Tree Climbing Workshop, Petersham, MA www.newenglandisa.org	
Oct 14	Urban Forest Connections Webinar	
Oct 20	MAA Safety Saves, Elm Bank, Wellesley, massarbor.org	
Oct 20	MAA Dinner Meeting, Framingham, www.massarbor.org	
Oct 25-27	New England ISA Annual Conference, North Conway, NH, www.newenglandisa.org	
Oct 28	Urban Forest Connections Webinar, http://www.fs.fed.us/research/urban-webinars/	
Nov 1	DCR Urban & Community Forestry Challenge Grants Due	
Nov 12-14	TCI Expo, Pittsburgh, PA, www.tcia.org	
Nov 16-17	Society of Municipal Arborists Annual Conference, Denver, CO, www.urban-forestry.com	
Nov 18-19	Partners in Community Forestry Conference, Denver, CO, www.arborday.org	
Dec 2-4	New England Grows, Boston www.newenglandgrows.org	
Dec 2-5	American Society of Consulting Arborists Annual Conference, Tucson, AZ, https://www.asca-consultants.org/	
Dec 8	EPA Green Infrastructure Webcast, www.epa.gov	
Dec 9	Urban Forest Connections Webinar	

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Peter Church, Director of Forest Stewardship, Department of Conservation and Recreation

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If you have a topic you'd like to see covered or want to submit an item to *The Citizen Forester* (article, photo, event listing, etc.), please contact [Mollie Freilicher](#) or click [here](#).

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